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DE10035120**ANSWER 1 OF 2 CAPLUS:**

ACCESSION NUMBER: 2001:62277 CAPLUS
DOCUMENT NUMBER: 134:117544
TITLE: Hydroformylation of olefins in a two-stage reaction system
PATENT ASSIGNEE(S): BASF A.-G., Germany
SOURCE: Ger. Offen., 11 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10035120	A1	20010125	DE 2000-10035120	20000719
PRIORITY APPLN. INFO.:			DE 1999-19934304	A1 19990721

AB Hydroformylation of olefins by reaction with H₂ and CO in the presence of a hydroformylation catalyst is carried out in 2 stages: (A) in the second stage a feed comprising olefins, CO, H₂, and the output from the first stage is partially converted and the product is sep'd. into a catalyst-contg. liq. fraction, a product-contg. fraction, and a fraction contg. unreacted olefins; (B) in the first stage a feed comprising some or all of the first and third fractions of the output from stage 2, as well as H₂ and CO, is catalytically converted. The process was illustrated for conversion of C₈ olefins (n-octenes 6, methylheptenes 57, and dimethylhexenes 37%) at 150°/280 bars with a Rh catalyst and a polyethylenimine cocatalyst, producing higher conversions than in an analogous case in which the fresh olefin feed was introduced to the first stage.

ANSWER 2 OF 2 WPIX:

ACCESSION NUMBER: 2001-183880 [19] WPIX
DOC. NO. CPI: C2001-055176
TITLE: Hydroformylation of olefins is carried out in two steps R1 and R2 in a reactor system, whereby the olefin containing feed, carbon monoxide, hydrogen and the discharge from R1 is fed to R2.
DERWENT CLASS: E19 H04
PATENT ASSIGNEE(S): (BADI) BASF AG
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
DE 10035120	A1	20010125 (200119)*		11	

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APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
DE 10035120	A1	DE 2000-10035120	20000719

PRIORITY APPLN. INFO: DE 1999-19934304 19990721

AN 2001-183880 [19] WPIX

AB DE 10035120 A UPAB: 20010405

NOVELTY - A process for the hydroformylation of olefins by the reaction of carbon monoxide and hydrogen in the presence of a hydroformylation catalyst in carried out in two steps (R1) and (R2) in a reactor system, whereby the olefin containing feed, carbon monoxide, hydrogen and the discharge from R1 is fed to reaction step R2 and partially reacted, catalytically and the output from (R1) is fed to (R2).

DETAILED DESCRIPTION - A process for the hydroformylation of olefins by the reaction of carbon monoxide and hydrogen in the presence of a hydroformylation catalyst in carried out in two steps (R1) and (R2) in a reactor system, whereby -the olefin containing feed, carbon monoxide, hydrogen and the discharge from R1 is fed to reaction step R2 and partially reacted, catalytically -the discharge from (R2) is separated to form a catalyst containing liquid fraction (F1), a product containing fraction (F2) and an unreacted olefin containing fraction (F3) -at least some of the fraction (F3), optionally with at least some of the fraction (F1) as well as carbon monoxide and/or hydrogen are fed to reaction step (R1) and catalytically reacted -the output from (R1) is fed to (R2)

USE - The process is useful for the hydroformylation of olefins.

ADVANTAGE - The process has improved olefin conversion rates.

DESCRIPTION OF DRAWING(S) - The drawing shows a schematic diagram of the process (Drawing includes non-English language text).

First reactor 1

Second reactor 2

Separator 3

Distillation column 4

Dwg.1/1